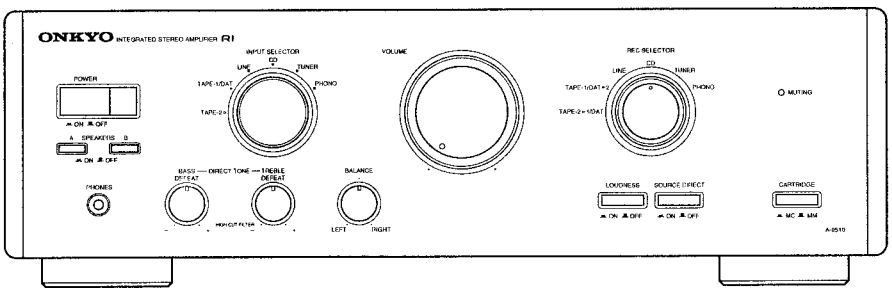
ONKYO

A-9510

Integrated Stereo Amplifier

Instruction Manual



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Thank you for your purchase of the Onkyo A-9510 Amplifier.
Please read this manual thoroughly before making connections and turning power on.
Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new A-9510.
Please retain this manual for future reference.

Features

- **Plenty of Clean Power**
  With 60 watts per channel into 8 ohms, 20 Hz to 20 kHz, 0.06% THD (Dynamic power: 130 watts/ch into 4 ohms), you'll have ample power to drive virtually any speakers, and produce dynamically rich music, even at low volume levels.
- **Simple, Direct Signal Paths**
  To further reduce the chances of noise or interference from entering the signal, the signal paths were made as short, direct and simple as possible.
- **Discrete Output Stage Amplifiers**
  Rather than inexpensive hydrid IC "power packs" found in some conventional amps, your A-9510 uses costly, discrete output stage amplifiers to drive each channel. In conjunction with the heavy-duty transformers and large chemical capacitors, they make it possible to drive low-impedance loads.
- **High Quality Remote Control System**
  The low-noise, RI system-compatible remote has fine positioning. It also has a self-cleaning system where contact points are polished by the rotation of the input selector when the power is turned on.
- **Heavy-duty speaker binding posts that can handle cable as thick as 5.5 mm in diameter**
- **Charging noise filters**
- **Gold-plated CD inputs**

FOR EUROPEAN MODEL

- This apparatus complies with requirements of EC directiue 87/308/EEC.

FOR CANADIAN MODEL: (POUR LE MODELE CANADIEN)

- For models having a power cord with a polarized plug.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

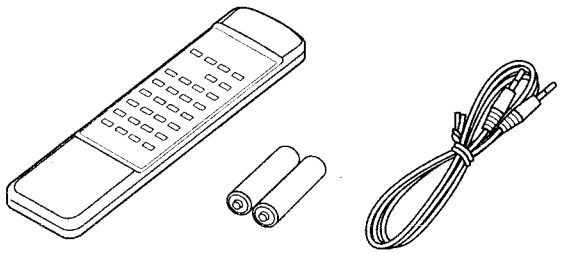
- Sur les modèles dont la fiche est polarisée.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQ'AU FOND.

ATTENTION FOR BRITISH MODEL

- Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.
- IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:
  Blue: Neutral
  Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



Supplied accessories

1 Remote control
2 Batteries (size AA, R6, or UM-3)
1 Remote control cable

"WARNING"
"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

CAUTION:
"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."

- The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important safeguards

1. **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** – All operating and use instructions should be followed.
5. **Water and Moisture** – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. **Carts and Stands** – The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

PORTABLE CART WARNING

S3125A

7. **Wall or Ceiling Mounting** – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Polarization** – If the appliance is provided with a polarized plug having one blade wider than the other, please read the following information: The polarization of the plug is a safety feature. The polarized plug will only fit the outlet one way. If the plug does not fit fully into the outlet, try reversing it. If there is still trouble inserting it, the user should seek the services of a qualified electrician. Under no circumstances should the user attempt to defeat the polarization of the plug.
12. **Power-Cord Protection** – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, especially near plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer.
14. **Nonuse Periods** – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. **Object and Liquid Entry** – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. **Damage Requiring Service** – The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has been spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
17. **Servicing** – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Precautions

1. Warranty Card

The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.

2. Recording Copyright

Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

3. AC Fuse

The fuse is located inside the chassis and is not user serviceable. If power does not come on, contact your Onkyo authorized service station.

4. Care

From time to time you should wipe the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.

5. Power

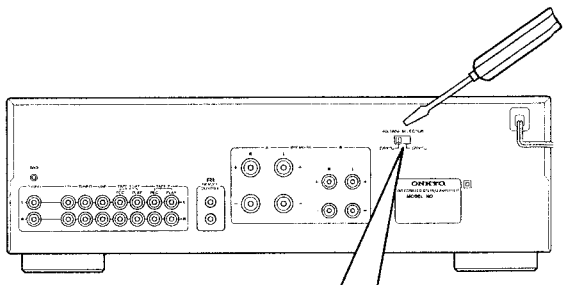
WARNING

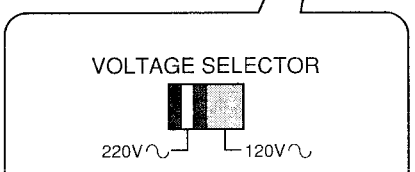
BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

European model:	AC 230V, 50Hz
U.S.A. and Canadian models:	AC 120V, 60Hz
Worldwide model:	AC 120V/220V switchable, 50/60Hz

- **Voltage Selector (Rear Panel)**
  Worldwide models are equipped with a voltage selector to conform to local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before plugging in the unit. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.

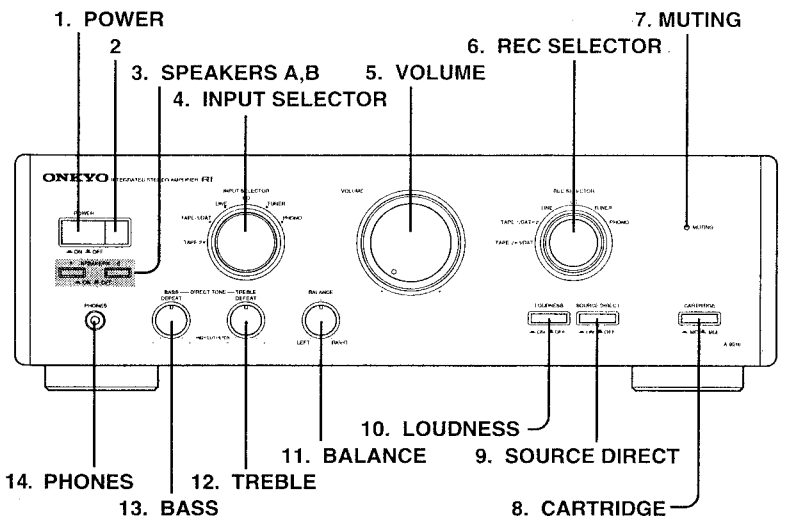




Setting the voltage selector

1. Determine the proper voltage for your area: 220V or 120V.
2. If the preset voltage is not proper for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way to the right (120V) or to the left (220V), whichever is proper.

Control positions and names

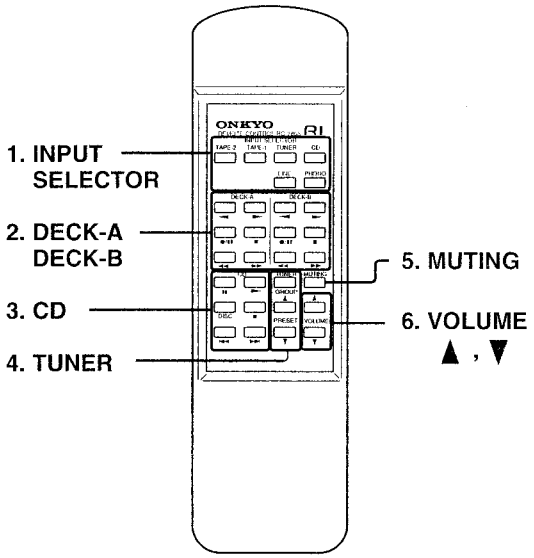


For more information about buttons or knobs, turn to page number listed in the [ ].

Front panel

1. **Power button [7]**
2. **Remote control sensor [6]**
3. **Speaker selector buttons [7]**
4. **Input selector knob and indicator [7]**
5. **Volume control knob [7]**
6. **Recording selector knob [9]**
7. **Muting indicator[8]**
8. **Cartridge selector button [7]**
9. **Source Direct button[8]**
10. **Loudness button [8]**
11. **Balance control knob [8]**
12. **Treble control knob [8]**
13. **Bass control knob [8]**
14. **Headphone jack [8]**

Remote control

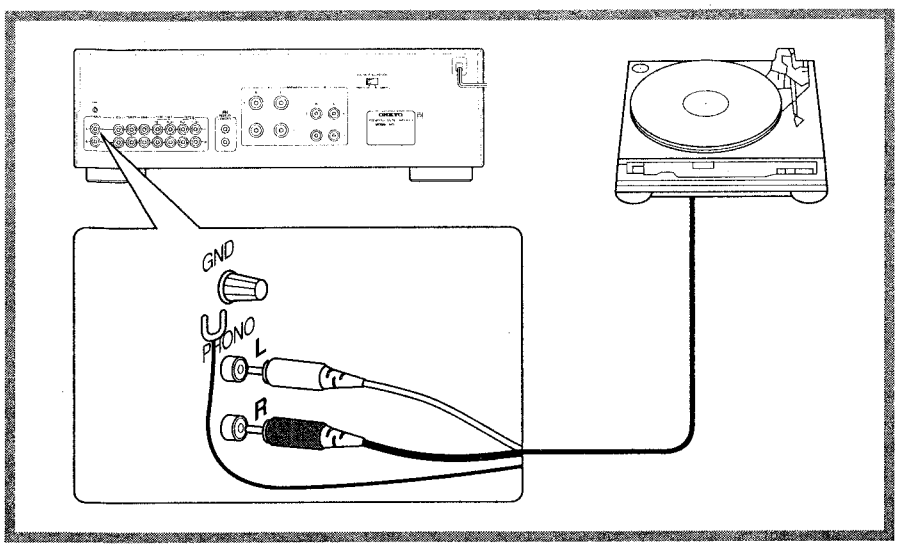


Remote control

1. **Input selector buttons [7]**
2. **Tape operation buttons**
   - ◄ : Reverse play button
   - ► : Forward play button
   - ◄◄ : Fast rewind button
   - ►► : Fast forward button
   - ■ : Stop button
   - ●/❚❚ : Record/pause button
3. **CD operation buttons**
   - ❚❚ : Pause button
   - ► : Play button
   - DISC : Disc button for CD changer
   - ⏮ : Down button
   - ⏭ : Up button
4. **Tuner operation buttons**
   - GROUP : Group selector button
   - PRESET : Preset memory down/ up
5. **Audio muting button [7]**
6. **Volume control buttons [7]**

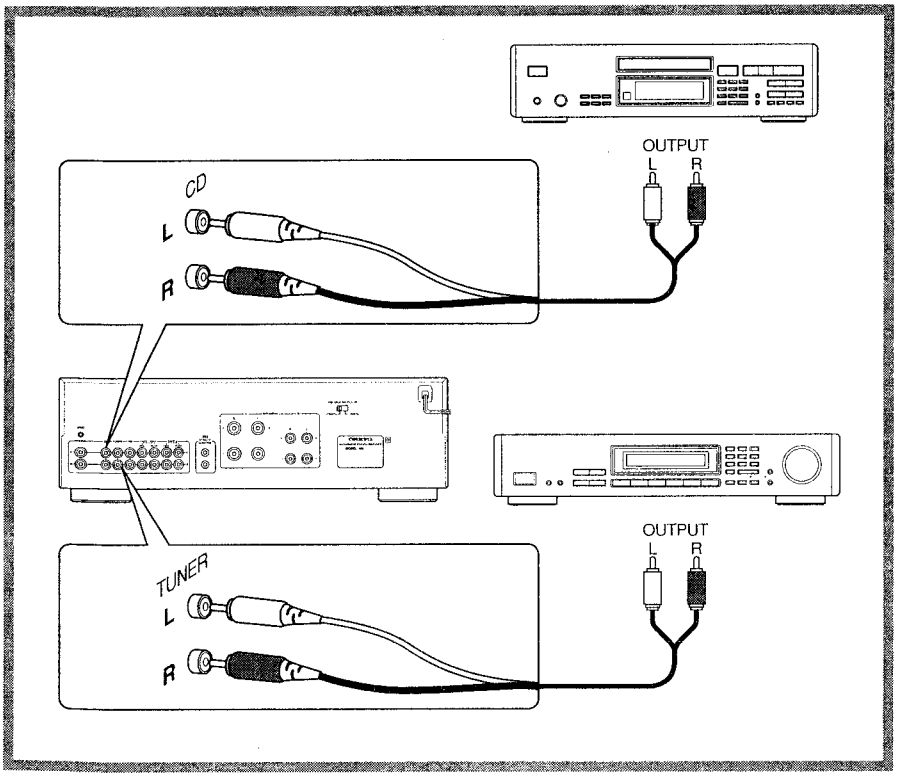
Making system connections

- **Do not plug in the power cord until all connections have been made.**
- **On each pair of input jacks, the lower jack (marked R) corresponds to the right channel, and the upper jack (marked L) to the left channel.**
- **Please refer to the instruction manual of each component when making any connections.**



Connecting a turntable (PHONO)

Connect the output leads of the turntable to the PHONO jacks.
Be sure to connect the ground (earth) lead wire from the turntable to the ground terminal (GND). Turntables not provided with GND wires do not need to be connected in this way.
Place the turntable on a firm shelf or deck free from vibrations (especially those generated by the speaker system). If the turntable is permitted to pick up such unwanted vibrations, not only will the performance of the unit drop, but distortion in the bass frequencies and howling in the speakers may also occur.

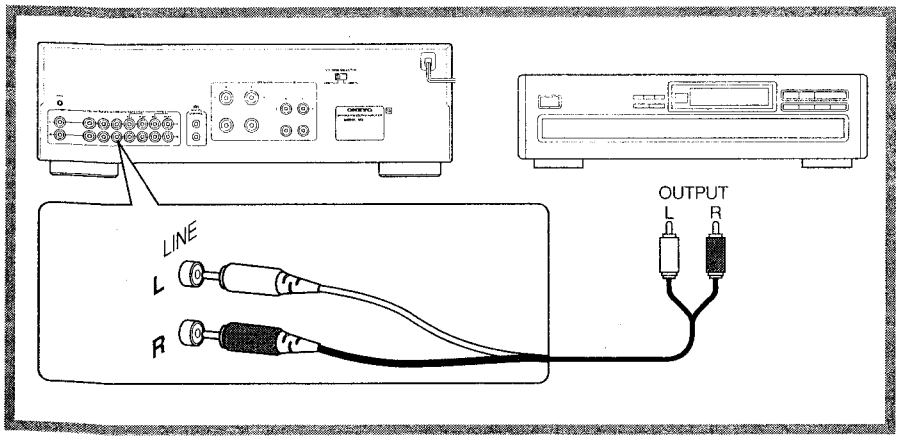


Connecting a CD (CD)

Connect a compact disc player to the CD input jacks.

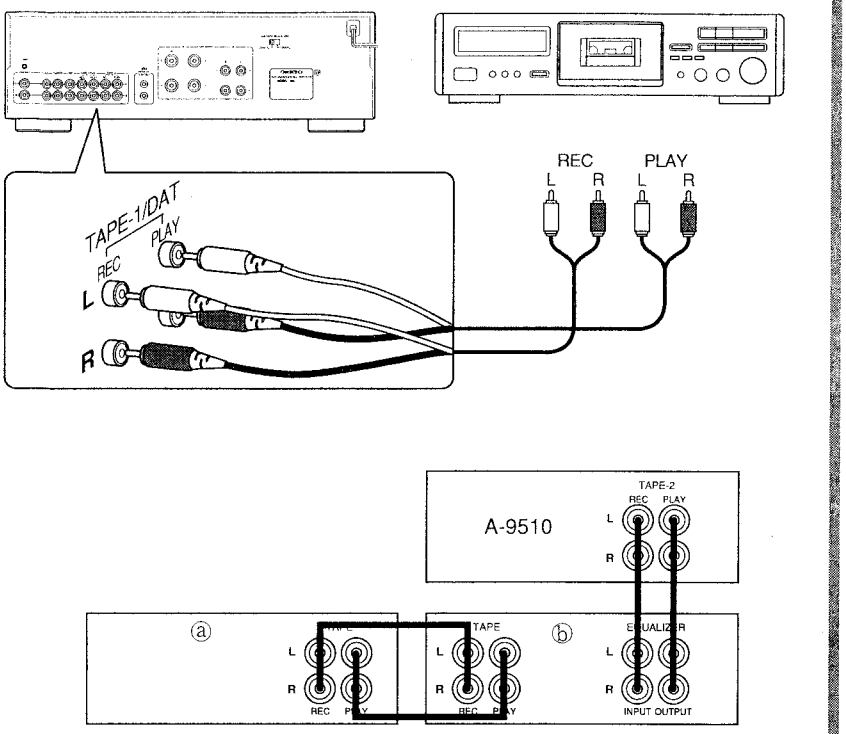
Connecting a tuner (TUNER)

Connect an FM/AM tuner to the TUNER input jacks.



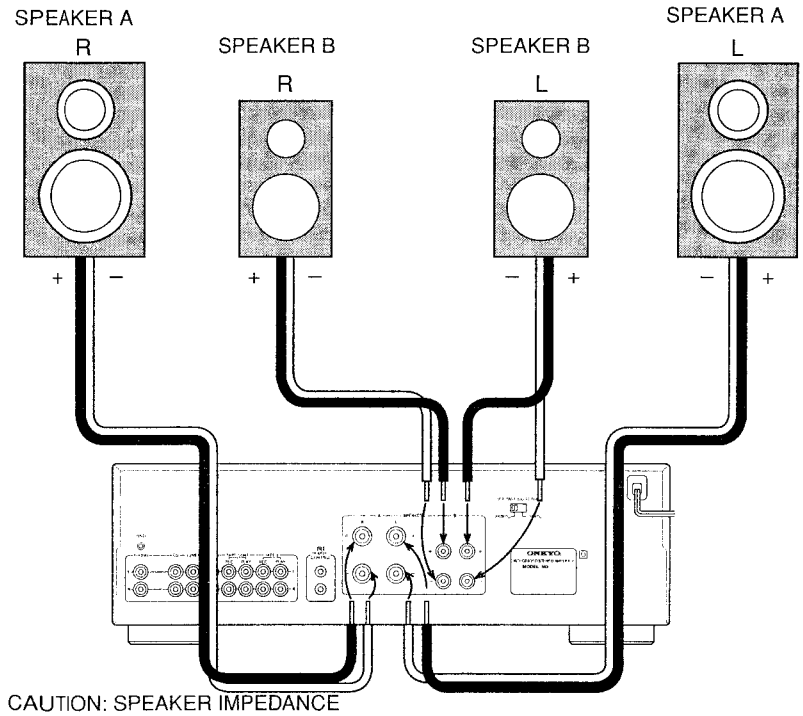
Connecting additional components (LINE)

This unit is equipped with LINE input jacks for connection to a wide range of audio components such as an additional compact disc player, an additional tuner, a television set, a VCR, a 4-channel stereo adaptor and other similar components.

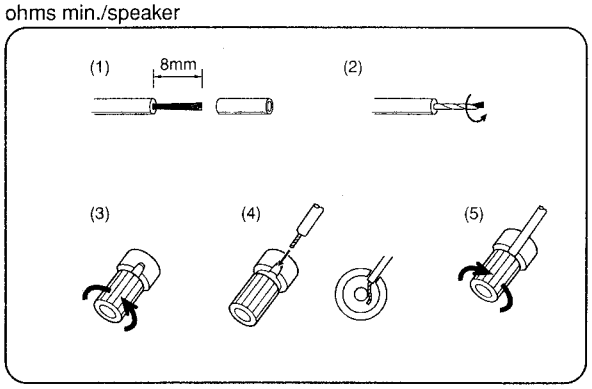


Connecting a tapedeck (TAPE-1/DAT, TAPE-2)

This unit has facilities for two tapedecks.
If you are using only one tapedeck, connect it to the TAPE-1/DAT jacks. If you have two tapedecks, connect one to the TAPE-1/DAT jacks and the other to the TAPE-2 jacks.
If you wish to use a graphic equalizer, as well as two tapedecks, connect the graphic equalizer to the TAPE-2 jacks, and connect the second tapedeck to the TAPE jacks on the graphic equalizer. (See the figure.)
(ⓐ second tapedeck, ⓑ graphic equalizer, connect the OUTPUT jacks on the graphic equalizer to the TAPE-2 PLAY jacks on the A-9510, and the INPUT jacks to the TAPE-2 REC jacks as shown.)
Please also see page 10 on how to use a graphic equalizer.



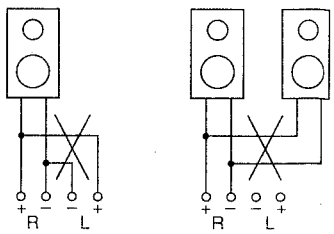
CAUTION: SPEAKER IMPEDANCE
A or B : 4 ohms min./speaker
A + B : 8 ohms min./speaker



Connecting the speakers

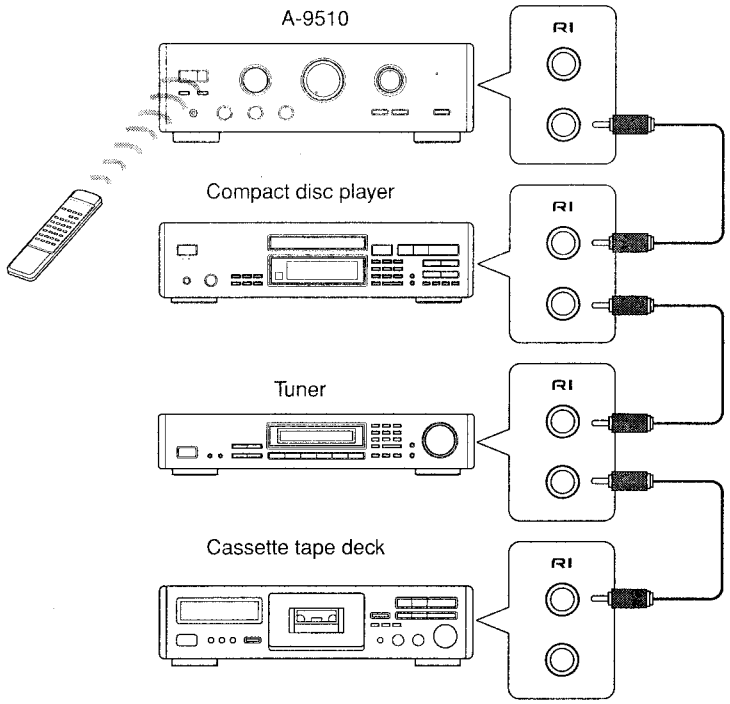
Two separate pairs of speaker systems can be connected to this unit at once.
Please connect each speaker according to the illustration, observing the correct connections for R, L, + and –.

- The load impedance of each speaker system connected to this unit must be at least 4 ohms. (If using only A or only B, 4 ohms min.; if A and B, 8 ohms min.)
- Do not use unnecessarily long or extremely thin speaker leads. If the DC resistance of the speaker leads is too high, the damping factor will decrease, adversely affecting the sound quality.
- When using only one speaker or when you wish to listen to monaural (mono), the single speaker should never be connected in parallel to both the right and left channel terminals at once.



- When using banana plugs, make sure the speaker terminal screws are screwed in firmly before inserting the banana plugs.

A cassette tape deck, compact disc player and tuner that have the Onkyo RI mark can be operated using the A-9510's accessory remote control.



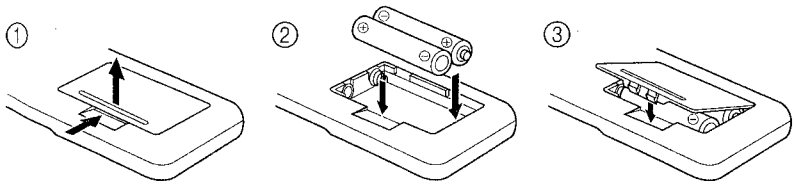
Connections for remote control (RI)

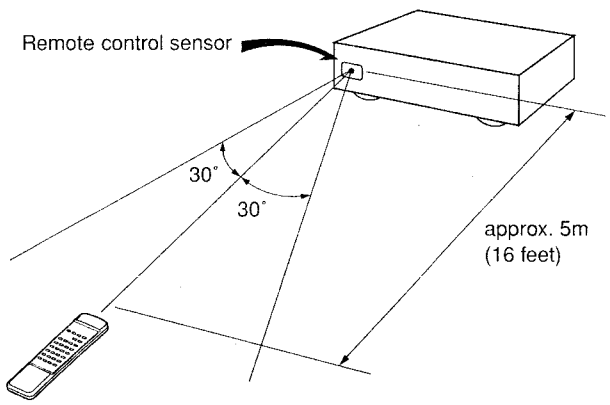
1. To use the A-9510 with an Onkyo cassette tape deck, compact disc player and tuner with the RI mark, connect the components together with RI remote control cables, plugged into the REMOTE CONTROL jacks.
2. As the exact connection sequence of the RI cable is unimportant, you can connect from the A-9510 to either the tuner, the cassette tape deck or to the compact disc player.
3. To operate correctly, the remote control must face towards the remote control sensor of the A-9510.

NOTE:

- The upper and lower RI remote control jacks have the same function.
- A tuner, cassette tape deck, and compact disc player that have the Onkyo RI mark can be operated, using the accessory remote control unit. (RI: Remote Interactive)
- Remote control operation is not possible when only the remote control cable is connected – the audio connection cables must also be connected.
- An RI remote control cable equipped with a 1/8" (3.5mm) diameter miniature two-conductor phone plug is included with every tuner, compact disc player, or cassette tape deck with the RI mark.

Please insert the batteries into the remote control according to the illustration.





Regarding the batteries

Average battery life is about one year, depending upon the frequency of use and the environment (temperature and humidity) in which the remote control is used. Only use batteries of the kind specified in the table below.

Type	Voltage	Size
Manganese	1.5V	AA, R6 or UM-3

Warning

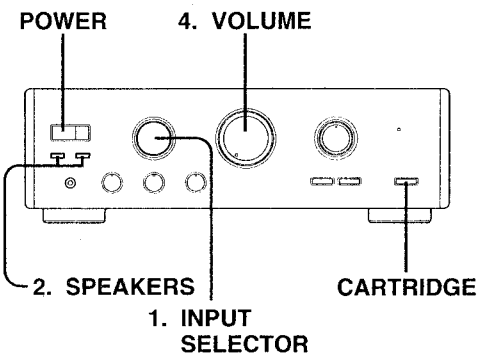
- Do not leave an expired battery in the case – it may leak or damage the remote control.
- Do not use nickel cadmium (rechargeable) batteries.
- Replace both batteries at once; do not use one old battery and one new battery.

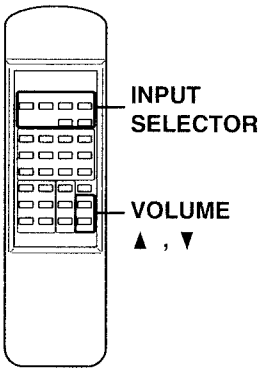
Using the remote control

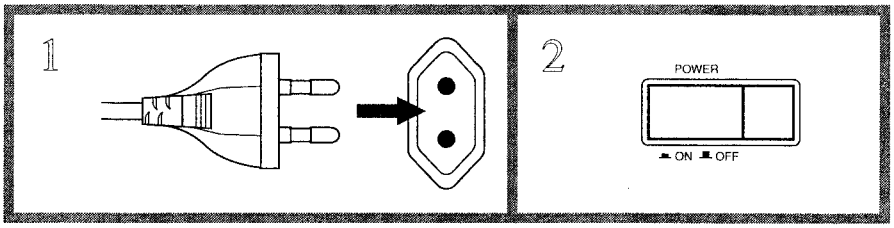
The following information will help you get optimal use from the remote control.

- Place the A-9510 away from direct bright light, which can prevent proper operation of the remote control.
- Make sure audio rack doors do not have colored glass. If the A-9510 is placed behind such a door, this may prevent proper remote control operation.
- Using other remote controls in the same room as the A-9510 remote control may cause interference.

Operating the A-9510



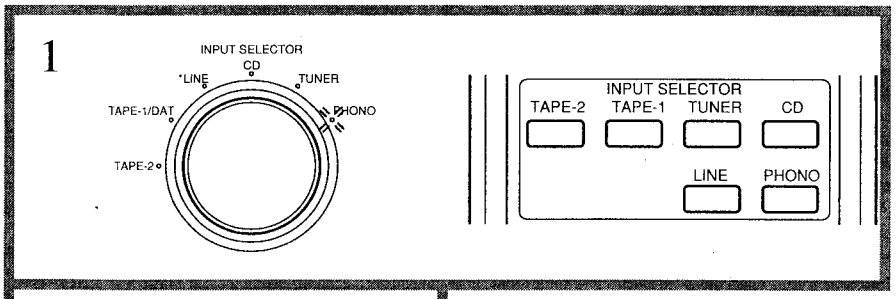




Connecting the power

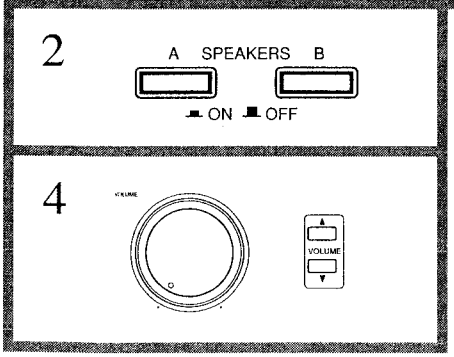
Before plugging in the unit, confirm that all connections have been made properly.

1. **Insert the AC power supply cord into the wall outlet.**
2. **Press the POWER button.**

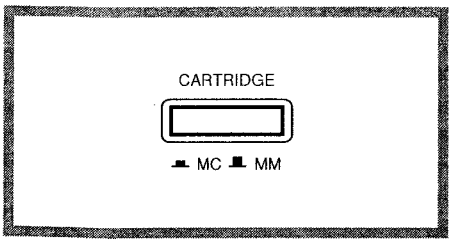


Listening to your favorite source

1. **Select your favorite source using the input selector (e.g. PHONO).**
   If you turn the INPUT SELECTOR knob to the right, the indicators will light up one at a time in a clockwise direction. Turning the knob to the left will reverse the direction.



2. **Select the speakers.**
   Select and press the button for the speakers that you want to listen to (SPEAKERS A and/or SPEAKERS B). From now on you will be able to hear from the speakers any sound going through the A-9510. If both SPEAKERS A and B buttons are set to OFF, no sound will come from the speakers.
3. **Start the selected input source playing.**
   Follow the operating instructions for that unit.
4. **Adjust the level.**
   Turn the VOLUME knob clockwise or press the UP button on the remote control to increase the volume level. Turn counterclockwise or press the DOWN button on the remote control to decrease the volume level.



Cartridge selector button (CARTRIDGE)

MC: When a turntable with an MC (moving coil) cartridge is being used.

MM: When a turntable with an MM (moving magnet) cartridge is being used.

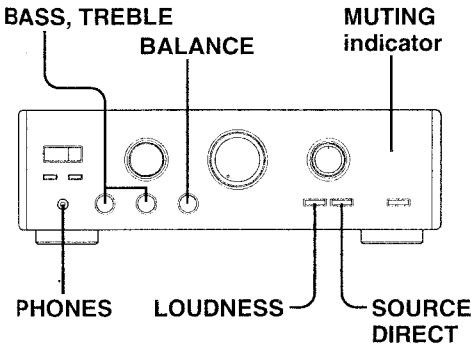
Use the MM position when a set-up transformer is being used with a turntable equipped when an MC cartridge.

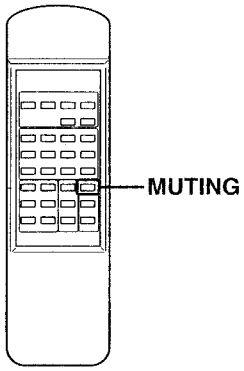
The Variable Tone Boosting System

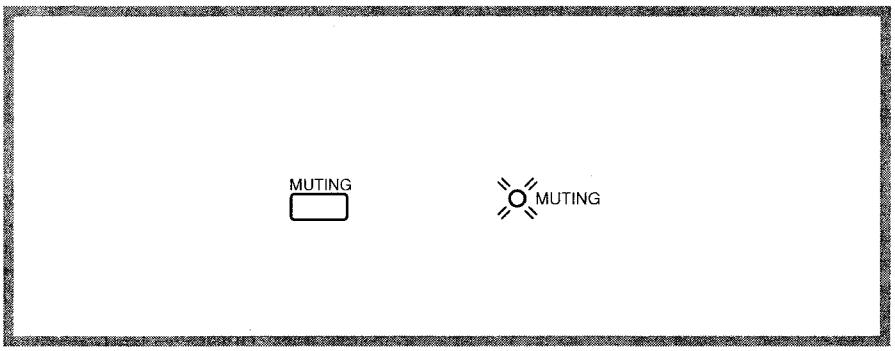
This unit is designed to gradually reduce the effect of the tone controls (BASS and TREBLE) when the volume exceeds a certain level. If the bass or treble controls are above the center defeat position, turning the VOLUME knob above half way will start to decrease their boosting effect, until when the VOLUME knob is turned all the way up, the frequency response will be flat again. If the VOLUME knob is below half way, it will have no effect on the tone controls.

The position of the VOLUME knob does not affect the tone controls if they are below the center DEFEAT position.

Operating the A-9510



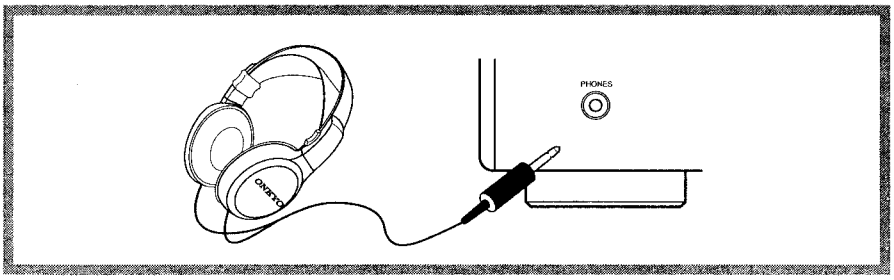




Temporary Muting

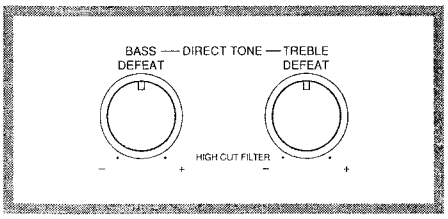
Press the MUTING button on the remote control.
This button temporarily switches off the sound from the speakers or headphones.
The MUTING indicator frash.
To cancel,

- press the MUTING button again, *or*
- adjust the volume with the remote control, *or*
- turn the power off then on.



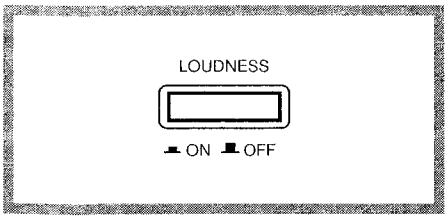
Listening using the headphones

Stereo headphones with a standard binaural (stereo) plug can be connected here.
When the headphone plug is inserted, the speakers are not automatically muted but can be controlled with the SPEAKERS A/B buttons.



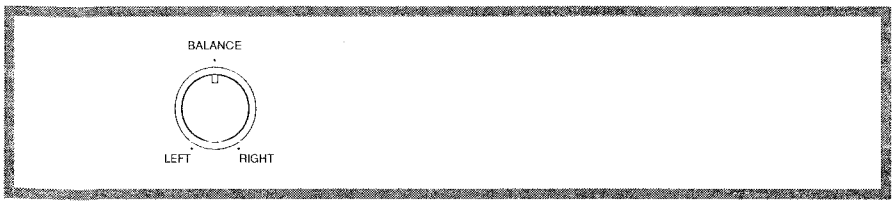
Adjusting the tone

Adjust to your desired tone.
BASS : Turn right to boost or left to attenuate the bass. In the center position, the bass tone control circuity is completely bypassed.
TREBLE : Turn right to boost or left to attenuate the treble. In the center position, the treble tone control circuity is completely bypassed.
When turned to the extreme left, the treble control acts as a high cut filter to eliminate scratches, hissing and other high frequency noise.



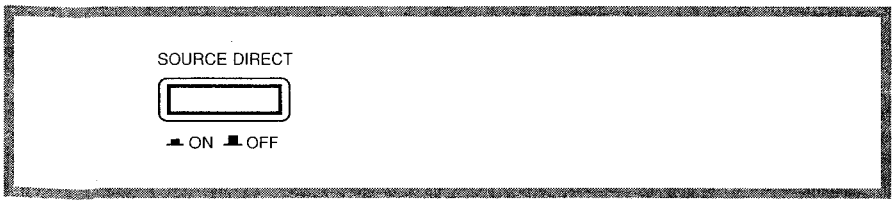
LOUDNESS control

By pressing the LOUDNESS button, both treble and bass are reinforced even when the volume is turned down low. Use this button according to the music source and according to the listening area. Its purpose is to enrich the natural sound effects of both the treble and bass.



Adjusting the balance

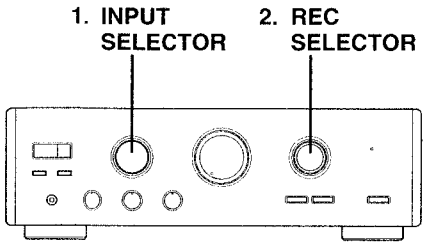
The BALANCE knob is used to control the relative volume level of the left and right speaker systems or headphones.

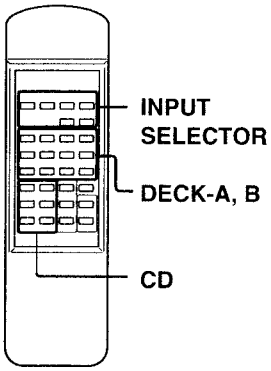


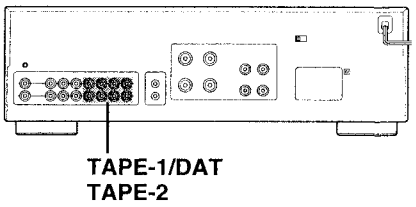
SOURCE DIRECT

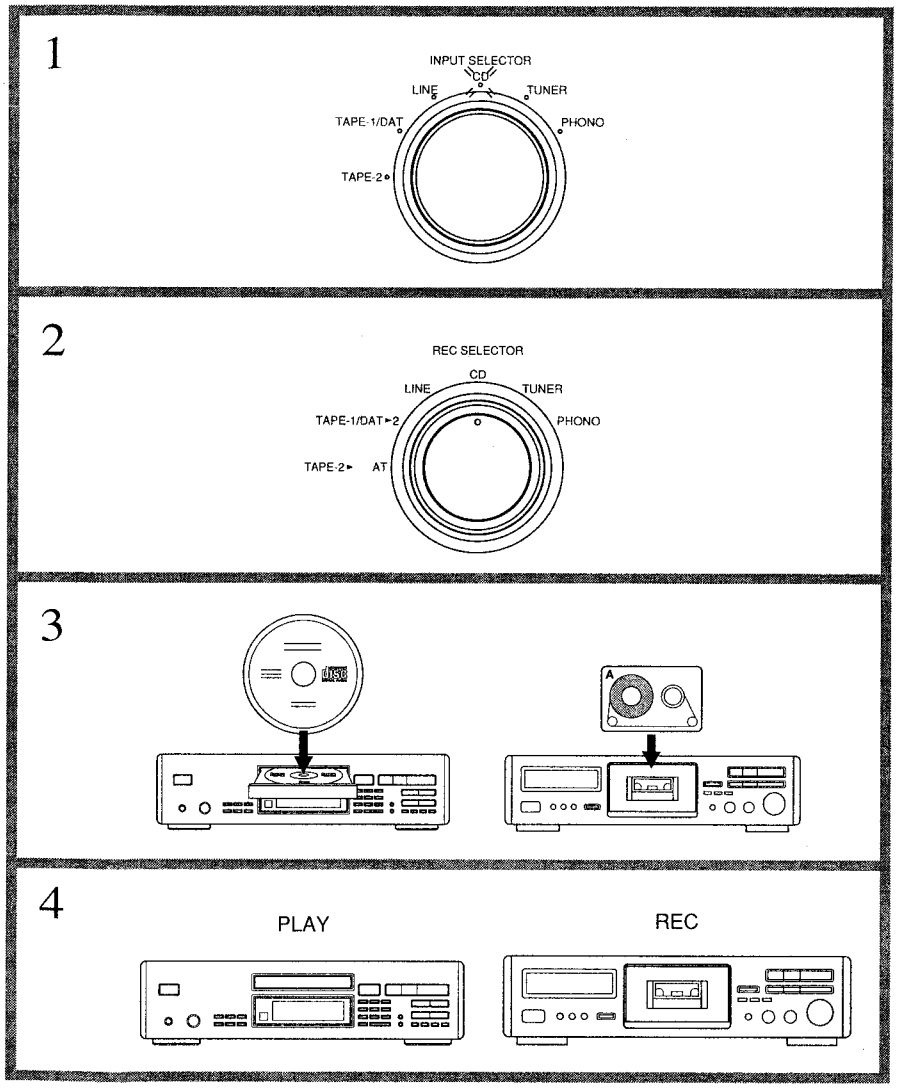
By selecting SOURCE DIRECT, you can obtain the purest possible sound reproduction, by bypassing the bass, treble, loudness and balance controls. It is still possible to adjust the volume.

Operating the A-9510









Recording (A)

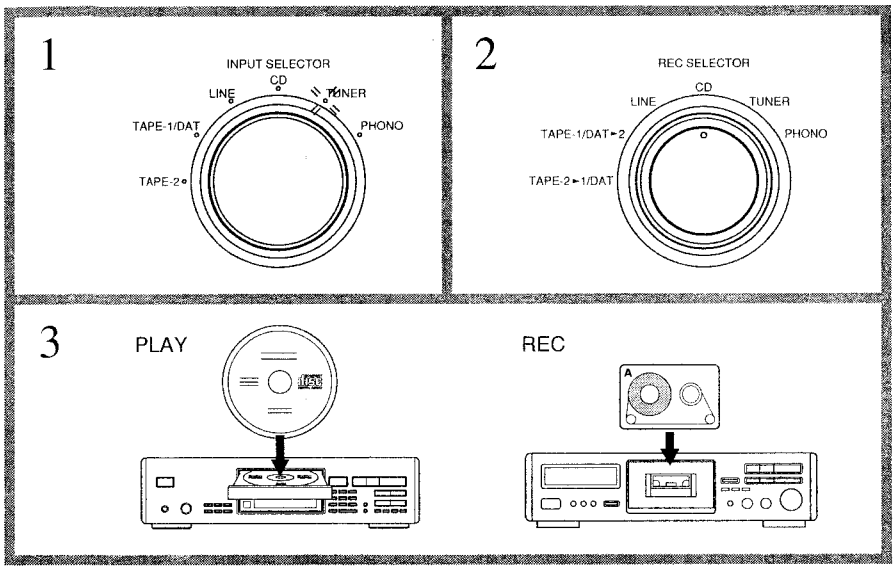
When recording the same source being listened to (e.g. when recording on TAPE-1/DAT and/or TAPE-2 from a CD):

1. **Select CD with the input selector.**
   If you turn the INPUT SELECTOR knob to the right, the indicators will light up one at a time in a clockwise direction. Turning the knob to the left will reverse the direction.
2. **Select CD with the record selector (REC SELECTOR) knob.**
3. **Insert the CD that you want to record into the CD player. Insert into the tapedeck(s) connected to TAPE-1/DAT and/or TAPE-2 a blank tape to record onto.**
4. **Press the record button on the tapedeck, then the play button on the CD player.**

When TAPE-1/DAT is selected with the input selector, it will record to the TAPE-2 REC jacks.

When TAPE-2 is selected, it will record to the TAPE-1/DAT REC jacks.

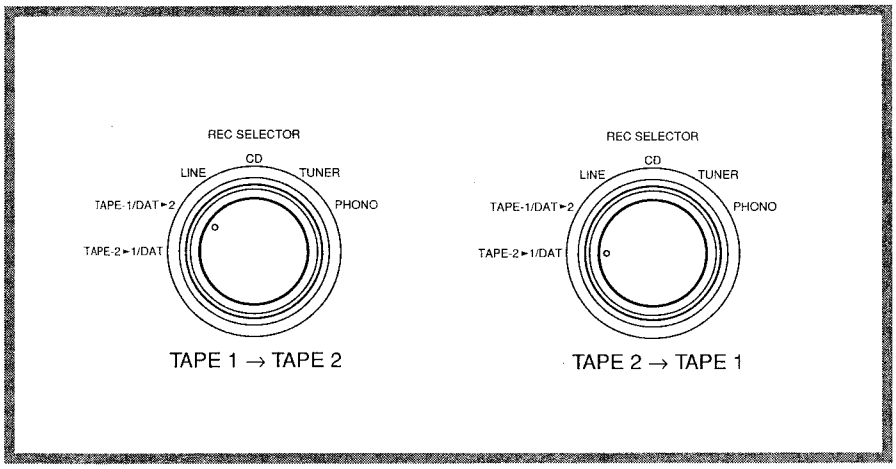
When either PHONO, TUNER, CD or LINE is selected, you are able to record to both the TAPE-1/DAT and TAPE-2 REC jacks.



Recording (B)

When you are recording from your selected source while listening to another source (e.g. listening to the tuner while recording to the TAPE-1/DAT and/or TAPE-2 jacks from a CD):

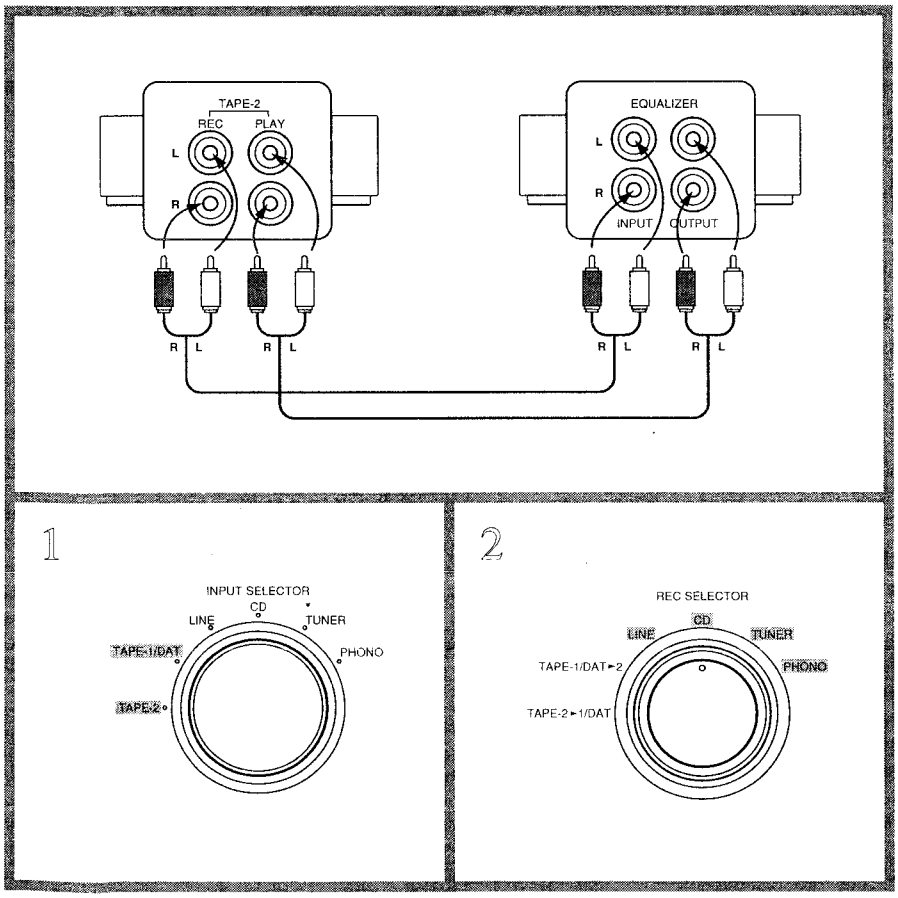
1. **Select TUNER with the input selector.**
2. **Select CD with the record selector.**
3. **Insert the CD that you want to record into the CD player.**
   Insert a blank tape that you wish to record on into the tapedeck connected to TAPE-1/DAT and/or TAPE-2.
4. **Press the record button on the tapedeck(s) then the play button on the CD player.**



Tape dubbing

Using two tapedecks to copy one tape to another tape is called tape dubbing.

- TAPE-1/DAT ► 2 is used for dubbing from TAPE-1 to TAPE-2.
  TAPE-2 ► 1/DAT is used for dubbing from TAPE-2 to TAPE-1
- If the tapedeck is a 3-head type, the recording status can be monitored with the input selector, by setting the INPUT SELECTOR to the tapedeck you are recording to.
  During dubbing, you can listen to a source other than the tapedeck by changing the input selector setting.



Graphic equalizer

When connecting the A-9510 to a graphic equalizer, connect the graphic equalizer's input terminals to either the A-9510's TAPE-1/DAT REC jacks or the TAPE-2 REC jacks. Also, connect the graphic equalizer's output terminals to either the A-9510's TAPE-1/DAT PLAY jacks or TAPE-2 PLAY jacks.

1. **Select TAPE-1/DAT or TAPE-2 (whichever you have connected to the graphic equalizer OUT terminals to) on the INPUT SELECTOR.**
2. **Select CD, TUNER, LINE or PHONO (whichever one you want to listen to) on the REC SELECTOR.**
3. **Operate the graphic equalizer.**
4. **Begin playing.**

- Depending on the particular graphic equalizer used, it may provide features such as muting and balance, as well as tone control (equalization).
- For the equalization of a source other than a CD, tuner, or phono, connect the source device to the amplifier's CD, TUNER, or LINE terminals. (If the device is connected to a terminal other than the CD, TUNER, LINE or PHONO terminals, equalization is not possible.)

Troubleshooting guide

- **No power.**
  Cause: The power cord is not plugged in.
  Remedy: Plug in the power cord.
  Cause: AC fuse blown.
  Remedy: Contact Onkyo Service Center.

- **Power but no sound.**
  Cause: Bad connections.
  Remedy: Check input leads, pin plugs, etc.

- **Hum, low frequency noise.**
  Cause: Poor or no input ground.
  Remedy: Check outer conductor of input plugs.
  Cause: Poor or no phono motor ground.
  Remedy: Check for proper ground connection.

- **Howling when the volume is turned up.**
  Cause: Turntable and speakers are too close together.
  Remedy: Move them farther apart.

- **Rough or scratchy sound. High range is not clear.**
  Cause: Stylus of pick-up is worn.
  Remedy: Replace.
  Cause: Stylus is dirty.
  Remedy: Clean.
  Cause: Treble control is too high.
  Remedy: Turn treble control down.

- **Front panel controls function but remote control does not.**
  Cause: No batteries in remote control.
  Remedy: Insert batteries.
  Cause: Batteries have worn out.
  Remedy: Replace batteries.

Specifications

Power output:	**60 watts per channel, min RMS, at 8 ohms, both channels driven from 20 Hz to 20 kHz, with no more than 0.06% THD.**
	2 × 100 watts at 4 ohms, 1 kHz(DIN)
	2 × 70 watts at 8 ohms, 1 kHz(DIN)
Total Harmonic Distortion:	0.06% at rated power
IM Distortion:	0.06% at rated power
Damping Factor:	150 at 8 ohms
Frequency and response:	15 Hz—50 kHz ±1 dB
Input sensitivity/impedance:	Phono (MM): 2.5 mV/50 kohms
	Phono (MC): 350 μV/220 ohms
	Tuner/CD/Line: 150 mV/25 kohms
	Tape Play: 150 mV/25 kohms
Output sensitivity/impedance:	Tape Rec: 150 mV/3 kohms (phono)
Phono overload:	135 mV RMS at 1 kHz, 0.1% THD (MM) (REC)
Bass control:	+10 dB –8 dB at 100 Hz
Treble control:	±8 dB at 10 kHz
Loudness control:	+6 dB at 100 Hz
	+3.5 dB at 10 kHz
Signal to noise ratio (IHF-A):	Phono (MM): 84 dB (5 mV input)
	Phono (MC): 74 dB (0.5 mV input)
	Source Direct (CD): 104 dB (0.5 V input)

General

Power supply:	European models: AC 230V, 50Hz
	Worldwide models: AC 120 and 220V switchable, 50/60Hz
Dimensions:	455 (W) × 150 (H) × 348 (D) mm
	17-15/16" × 5-7/8" × 13-11/16"
Weight:	8.6 kg, 19.0 lbs.

Remote control RC-286S

Transmitter:	Infrared
Signal range:	Approx. 5 meters, 16ft
Power supply:	Two "AA" batteries (1.5 V × 2)

Specifications and features are subject to change without notice.

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